YASH GUPTE

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EDUCATION

MS in ECE Engineering
University of Colorado, Boulder
August 2018 – Present [Expected 2020]
Courses: 1. Principles of Embedded Software (PES)
2. Introduction to Power Electronics

BE in Electronics
D.J. Sanghvi College Of Engineering, Mumbai, India.
July 2013-August 2017
CGPA: 8.24/10

PROFESSIONAL EXPERIENCE

BETiC (IIT Bombay), Mumbai
August 2017-July 2018
Project Research Assistant
Biomedical engineering and technology incubation Centre (BETiC) in IIT Bombay is a **ISO 13485** certified lab facilitating rapid translation of innovative ideas from doctors into high-quality low-cost medical devices suitable for the local population. My roles involved:

- *Developing embedded systems*; Testing code and performing simulations, PCB Designing and milling, Soldering and Testing of circuits.
- *Mentoring* Medical Device competitions organized by BETiC.

RESEARCH PROJECTS

Diabetic Foot Screening Device [*Patent Pending*]
Sept 2017- Jan2018
Developed a Diabetic Foot Stiffness Device for sensing numbness in foot due to diabetic foot neuropathy, utilizing a **TI-MSP 432(Cortex M4)** for handling multiple Interrupts from controller, actuator and user button interface.
Python GUI was used to log data in an excel sheet.

Radial Pulse Screening Device
Feb 2018-June 2018
Developed a device to screen and record the waveforms of the radial pulse using microphones and filters which provide a screening of ailments in the human body.

ATMega328P was used for prototyping stage due to lower cost and enough sampling rate of 10khz. **Python** was used to plot the waveforms of the recorded pulses.

TECHNICAL SKILLS

C|Python|Git|CCS|Kinetis|STM32|NXP|GCC|Linux|RaspberryPi|GDB|FTP|BLE|PSoC|IoT|Make|PCB Design|Altium|Mentor Graphics| PCB Milling|LPKF|Keil|OpenCV|UART|FunctionGenerators|Oscilloscopes

ACADEMIC PROJECTS

Bluetooth Low Energy (BLE) entry registration system
June 2016-April 2017
Developed a BLE based device which uses BLE in phones of students to mark and record attendance in lectures. *Raspberry Pi* recorded the data and provided it on a server via FTP for access from anywhere in local server. Implemented the above using Cypress Semiconductor *PSoC 4200 BLE board (Cortex M0)*.

Hammer Board
Sept 2018- Present
Developing a device to perform Load Testing on generic SMPS. Utilizing Mentor Graphics for PCB design.

Embedded Command Line Interface
Sept 2018-Oct 2018
Interactive command-line interface with FRDMKL25Z. Involves dynamic memory operations such as allocate, store, invert and free memory.

CERTIFICATIONS AND COURSES

I. **ARM University Program Training Course** on Embedded System Design and Programming.
II. **Cypress University Alliance Training Program** on Internet of Things (**IoT**)
III. **Embedded Systems and Internet of Things (IoT)**
IV. Fundamentals of Audio and Music Engineering: Part 1: Musical and Sound Electronics from University Of Rochester via Coursera.

AWARDS

I. Stood **1st** in the **Medical Devices Hackathon (MEDHA 2017)** - A national level medical device innovation competition.
II. Secured **2nd** position in **Line Follower Competition** (Abhiyantriki 2015) at inter college level.